


**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

DATE: November 2, 1998

SUBJECT: Inspection at CCL Custom Manufacturing, Niles, Illinois

FROM: Nhien Pham
AECAS (IL/IN)

TO: File

THROUGH: Brent Marable
Chief, AECAS (IL/IN) 

Date of Inspection: October 30, 1998

Attendees: Nhien Pham, USEPA
Noel Vargas, USEPA

Purpose of Inspection: Routine inspection.

Company Description and Background:

Plant Location: 6100 West Howard Street
Niles, Illinois 60714

Phone Number: 847-967-8100

Primary Contact: Don Andrews, Environmental Coordinator

CCL Custom Manufacturing (CCL) formulates and packages liquid and aerosol consumer products on a contract basis. The multitude of products covers a diverse range including household cleaning compounds and personal care items such as deodorants and hair sprays. These products are compounded for a number of retail suppliers. The plant is located at 6100 West Howard Street in Niles, Illinois.

ARRIVAL

Noel Vargas and Nhien Pham arrived at 10:30 AM and showed credentials at the main office.

PROCESS DESCRIPTION

As mentioned above, CCL formulates and packages liquid and aerosol consumer products on a contract basis. Liquid components are held in a series of storage tanks. The fluid ingredients and the propellants are pumped to the mix/blend tanks in proportions corresponding to the exact product formulations. Mechanical mixers are used to achieve a product with consistent properties. The blended product is pumped by the propellant booster pumps from the mix/blend tanks to three can-filling stations. These three stations automatically fill the cans with a precise amount of product.

After filling, the cans are pressurized with propellant and capped by one of two methods, Enhanced Under the Cup (UTC) or Through the Valve (TTV). The enhanced UTC fill method charges the propellant under the valve cup (container top) and mechanically seals the the cup after the fill cycle while the TTV fill method charges the propellant through the valve that controls dispensing of the product. The valve cup is mechanically sealed prior to the pressure fill operation. The two methods of pressurization result in significantly different losses of propellant when emissions are calculated on a "unit filled" basis.

Through studies and calculations, CCL has determined an average emission rate of 0.0028 pounds of VOM per can filled with the enhanced UTC fill method and an average emission rate of 0.001 pounds of VOM per can filled with the TTV method. Of the four aerosol lines (6, 8, 9, and 11), lines 8 and 9 are only capable of filling UTC method while lines 6 and 11 are capable of utilizing either UTC or TTV filling method. Potential emissions for both methods were determined using a production rate of 105,286,440 cans filled annually.

CCL installed an afterburner to control emissions from cans that do not pass quality inspections. These cans are punctured to empty the contents for recycling. This operation is performed in an enclosed room. The afterburner is also used for controlling VOM emissions from UTC filling method with a rated 95% efficiency based on the information provided in the permit application.

For each aerosol filling line, CCL installed a MSA Fenwal system or gas house for safety purposes. According to Melvin Sneed, Engineering/Compounding Manager, the setting of the MSA system is as follows. At 20% LEL, the system alarm is activated. At 40% LEL, the entire aerosol filling line shuts down until the problem is located and fixed.

In addition to the MSA system, CCL also has a baghouse that controls PM emissions from bulk materials storage. Perlite and sodium tripolyphosphate (SSTP) are used in many of the products produced at CCL. The materials are in powder form and are stored in silos for distribution to the mix tanks.